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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,537	12/13/2001	Gerhard J Bleys	P 282804/EUR	8094

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EXAMINER	
SERGENT, RABON A	

ART UNIT	PAPER NUMBER
1796	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/914,537	BLEYS ET AL.	
	Examiner	Art Unit	
	Rabon Sergent	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-12,16-21 and 24-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-12, 16-21, and 24-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Claims 1-4, 6-12, 16-21, and 24-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Support has not been provided for the amendment to claim 1 specifying that the polyurethane material is low density, in that the specification fails to provide any suggestion that foams having the claimed apparent overall density range are "low-density". In fact, the disclosure at page 13, lines 4-8 of the specification indicates that foams having the claimed apparent overall density are "high density".

Furthermore, contrary to applicants' arguments, neither support nor definition has been provided for specifying that the external mould release agent is "conventional". It is noted that applicants simply state at page 12, line 27 that "Any external mould release agent known in the art may be applied; …", and the position is taken that this statement provides neither suggestion nor guidance as to what can be considered to be "conventional". There is simply nothing on the record to indicate what release agents are "conventional" and what ones are not.

Additionally, support has not been provided for the subject matter of claim 25. The examiner finds no disclosure that supports the language of claim 25.

2. Claims 1-4, 6-12, 16-21, and 24-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Firstly, the term, " low-density", renders claim 1 indefinite, because the language is relative and no definition has been provided to indicate what range of densities are encompassed by the language. As aforementioned, the disclosure at page 13 of the specification suggests that foams having the claimed apparent overall densities are, in fact, high density foams.

Secondly, the language, "conventional", renders the claims indefinite, because it cannot be determined what release agents are "conventional" and what ones are not. There is no means whatsoever for determining how a "conventional" release agent is distinguished from a non-conventional release agent.

Lastly, with respect to claim 27, it is unclear what constitutes an "excessive amount" or to what the excessive amount is relative.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-4, 6-12, 16-21, and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleys ('226) or Eling et al. ('483), each in view of Payne et al. ('310) and Wesala ('607, as it pertains to new claim 24) .

Bleys and Eling et al. disclose the production of resilient flexible polyurethane foams prepared from the reaction of water, 4,4'-diphenylmethane diisocyanate, and polyether polyols, having greater than 50% by weight oxyethylene groups, functionalities of 2-6, and equivalent weights that overlap those claimed by applicants. See abstracts. Furthermore, patentees disclose that prepolymer processes or one-shot processes may be employed and that the polyurethanes may be moulded. See column 3, lines 53+ within Bleys. See abstract and column 4, lines 61+ within Eling et al. Given the well-known use of one-shot and prepolymer processes in the production of polyurethane foams, the position is taken that these disclosures are adequate to satisfy claims 21, 26, and 27.

5. Though the primary references are silent regarding applicants' claimed process of coating the mould with an external release agent and producing at least 10 mouldings prior to recoating the mould with the external release agent, the position is taken that, in the production of polyurethane foams, the coating of a mould with an external release agent to facilitate multiple removals of the foam from the mould without having to recoat the mould with the release agent was known at the time of invention. This position is supported by the teachings of Payne et al. Payne et al. disclose a method of moulding, wherein a mould release agent is applied to a mould and several releases are obtained before recoating of the mould is required. See abstract; column 1, lines 46-52; column 4, lines 29-37; column 6, lines 6-10; and Examples. Furthermore, Payne et al. disclose at column 4, lines 16-18 that the solids content of the release agent can be

manipulated to increase the number of releases per coating. Accordingly, it would have been obvious to produce mouldings utilizing the disclosed foam composition of the primary references and to utilize external mould release agents, as taught by Payne et al., so as to obtain a more efficient method of moulding, wherein multiple releases are obtained without having to recoat the mould. Furthermore, one of ordinary skill in the art seeking to increase the number of releases per coating would have been motivated by the teachings of the reference to alter the solids content to achieve the desired result. With respect to claim 24, it is noted that Payne et al. teaches at column 3, lines 9+ that their mould release agent can be blended with other known prior art release agents, such as those set forth within U.S. Patent 4,491,607 (Wesala). It is further noted that Wesala establishes at column 1, lines 26-30 that waxes were known release agents. Accordingly, it would have been obvious to combine the mould release agent of Payne et al. with wax, so as to arrive at the invention of claim 24.

6. Claims 1-4, 6-12, 16-21, 24, 25, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleys et al. (‘779) in view of Payne et al. (‘310) and Wesala (‘607, as it pertains to new claim 24).

Bleys et al. disclose the production of resilient flexible polyurethane foams prepared from the reaction of water, 4,4’-diphenylmethane diisocyanate, and polyether polyols, having greater than 50% by weight oxyethylene groups, functionalities of 2-6, and equivalent weights that overlap those claimed by applicants. See abstracts. Furthermore, patentees disclose that prepolymer processes may be employed and that the polyurethanes may be moulded. See abstract; column 4, lines 11-45; and column 5, line 13 within Bleys et al.

7. Though the primary reference is silent regarding applicants' claimed process of coating the mould with an external release agent and producing at least 10 mouldings prior to recoating the mould with the external release agent, the position is taken that, in the production of polyurethane foams, the coating of a mould with an external release agent to facilitate multiple removals of the foam from the mould without having to recoat the mould with the release agent was known at the time of invention. This position is supported by the teachings of Payne et al. Payne et al. disclose a method of moulding, wherein a mould release agent is applied to a mould and several releases are obtained before recoating of the mould is required. See abstract; column 1, lines 46-52; column 4, lines 29-37; column 6, lines 6-10; and Examples. Furthermore, Payne et al. disclose at column 4, lines 16-18 that the solids content of the release agent can be manipulated to increase the number of releases per coating. Accordingly, it would have been obvious to produce mouldings utilizing the disclosed foam composition of the primary reference and to utilize external mould release agents, as taught by Payne et al., so as to obtain a more efficient method of moulding, wherein multiple releases are obtained without having to recoat the mould. Furthermore, one of ordinary skill in the art seeking to increase the number of releases per coating would have been motivated by the teachings of the reference to alter the solids content to achieve the desired result. With respect to claim 24, it is noted that Payne et al. teaches at column 3, lines 9+ that their mould release agent can be blended with other known prior art release agents, such as those set forth within U.S. Patent 4,491,607 (Wesala). It is further noted that Wesala establishes at column 1, lines 26-30 that waxes were known release agents. Accordingly, it would have been obvious to combine the mould release agent of Payne et al. with wax, so as to arrive at the invention of claim 24.

8. Applicants have argued that Payne et al. teach away from the use of conventional external mould release agents. This argument is without merit. Firstly, the term, "conventional", as instantly claimed, has not been defined and consequently is considered to convey extremely little if any patentable weight to the claims. There is no means for determining what was conventional at the time of invention and there is nothing on the record to establish that the mould release agents of Payne et al. were not "conventional" at the time of invention. Secondly, as aforementioned, Payne et al. clearly allow for the additional use of other known prior art release agents at column 3, lines 9+, and it cannot be argued that these release agents were not conventional. Lastly, it is noted that applicants have clearly stated at page 12, line 27 of the specification that "Any external mould release agent known in the art may be applied; …", and the position is taken that the mould release agent of Payne et al. was clearly known in the art at the time of invention.

9. Claims 1-4, 6-12, 16-21, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleys ('226) or Eling et al. ('483), each in view of Lopes et al. ('714).

Bleys and Eling et al. disclose the production of resilient flexible polyurethane foams prepared from the reaction of water, 4,4'-diphenylmethane diisocyanate, and polyether polyols, having greater than 50% by weight oxyethylene groups, functionalities of 2-6, and equivalent weights that overlap those claimed by applicants. See abstracts. Furthermore, patentees disclose that prepolymer processes or one-shot processes may be employed and that the polyurethanes may be moulded. See column 3, lines 53+ within Bleys. See abstract and column 4, lines 61+ within Eling et al. Given the well-known use of one-shot and prepolymer processes in the

production of polyurethane foams, the position is taken that these disclosures are adequate to satisfy claims 21, 26, and 27.

10. Though the primary references are silent regarding applicants' claimed process of coating the mould with an external release agent and producing at least 10 mouldings prior to recoating the mould with the external release agent, the position is taken that, in the production of polyurethane foams, the coating of a mould with an external release agent to facilitate multiple removals of the foam from the mould without having to recoat the mould with the release agent was known at the time of invention. This position is supported by the teachings of Lopes et al. Lopes et al. disclose a method of moulding polyurethane foam articles, wherein a mould release agent is applied to a mould and several releases are obtained before recoating of the mould is required. See abstract; column 1, lines 5-21; column 3, lines 30+; columns 4 and 5; column 6, lines 1-32 (especially line 32); and Examples. Accordingly, it would have been obvious to produce mouldings utilizing the disclosed foam composition of the primary references and to utilize external mould release agents, as taught by the secondary reference, so as to obtain a more efficient method of moulding, wherein multiple releases are obtained without having to recoat the mould. Given the teachings of the reference, applicants have failed to establish that their results are unexpected.

11. Claims 1-4, 6-12, 16-21, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleys et al. ('779) in view of Lopes et al. ('714).

Bleys et al. disclose the production of resilient flexible polyurethane foams prepared from the reaction of water, 4,4'-diphenylmethane diisocyanate, and polyether polyols, having greater than 50% by weight oxyethylene groups, functionalities of 2-6, and equivalent weights that

overlap those claimed by applicants. See abstracts. Furthermore, patentees disclose that prepolymer processes may be employed and that the polyurethanes may be moulded. See abstract; column 4, lines 11-45; and column 5, line 13 within Bleys et al.

12. Though the primary reference is silent regarding applicants' claimed process of coating the mould with an external release agent and producing at least 10 mouldings prior to recoating the mould with the external release agent, the position is taken that, in the production of polyurethane foams, the coating of a mould with an external release agent to facilitate multiple removals of the foam from the mould without having to recoat the mould with the release agent was known at the time of invention. This position is supported by the teachings of Lopes et al. Lopes et al. disclose a method of moulding polyurethane foam articles, wherein a mould release agent is applied to a mould and several releases are obtained before recoating of the mould is required. See abstract; column 1, lines 5-21; column 3, lines 30+; columns 4 and 5; column 6, lines 1-32 (especially line 32); and Examples. Accordingly, it would have been obvious to produce mouldings utilizing the disclosed foam composition of the primary reference and to utilize external mould release agents, as taught by the secondary reference, so as to obtain a more efficient method of moulding, wherein multiple releases are obtained without having to recoat the mould. Given the teachings of the reference, applicants have failed to establish that their results are unexpected.

13. The examiner has considered applicants' response; however, the response is insufficient to overcome the prior art rejections. Applicants have argued that the instant invention does not have to be a specialized mould release agent, which is contrary to the teachings of Lopes et al. In response, applicants' amendments and arguments do not distinguish the instant invention from

Lopes et al. As with applicants' arguments directed at Payne, "conventional" has not been defined and there is no means for determining that the mould release agent of Lopes et al. was not "conventional" at the time of invention. It is noted that applicants have clearly stated at page 12, line 27 of the specification that "Any external mould release agent known in the art may be applied; …", and the position is taken that the mould release agent of Lopes et al. was clearly known in the art at the time of invention. Applicants have additionally argued that Lopes et al. teach that "all components should be free of water", and, while applicants' point is not clear, it is supposed that applicants are suggesting that Lopes et al. teach away from the use of water as it is used in the instant invention. In response, applicants' argument is without merit. The passage pertaining to the exclusion of water pertains only to the mould release composition, before it is coated on the mould and cured; it does not pertain in any sense to the mouldable composition.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

/Rabon Sergent/
Primary Examiner, Art Unit 1796

R. Sergent
August 1, 2008